TEACHERS' RETIREMENT BOARD

INVESTMENT COMMITTEE

SUBJECT: Credit Enhancement Program
Policy Revision

ATTACHMENT(S): 3

ACTION: X

DATE OF MEETING: December 4, 2002

INFORMATION: ____
PRESENTER(S): Jean Kushida Uda

EXECUTIVE SUMMARY

One of the 2002-03 Investment Branch objectives is to review the Credit Enhancement Program (CEP) policies. This agenda item includes a marked-up CEP Policy Manual, presenting staff's recommendations (Attachment 1), the proposed revised Policy Manual (Attachment 2), and the Board Resolution (Attachment 3).

Staff and PCA are recommending a change to policy item #4 to increase the maximum CEP portfolio size from 2% of the CalSTRS investment portfolio to 3% of the CalSTRS investment portfolio.

Reasons for the recommendation:

- ➤ Demand for CalSTRS credit enhancement has been very strong. This is reflected in the 31% average annual growth of the program over the past four years. The program is reaching the 2% maximum limit.
- ➤ The CEP has provided additional fee income to the CalSTRS investment portfolio on a risk-adjusted basis.
- The quality of the CEP portfolio remains high at an A+/Aa3 quality.

BACKGROUND

The CEP policies and procedures were first approved in February 1994 and updated in April 1999. Policy #4 established the size of the program to 2% of the market value of the CalSTRS investment portfolio. The 2% figure allowed room for the program to selectively underwrite new business, but provided a cap to the overall program size.

Program History The program has evolved over the past eight years, as the following statistics indicate:

- ✓ Commitments have increased an average of 31% annually over the past four years.
- ✓ Annualized fee income has increased an average of 38% over the same period.
- ✓ Average fee income has increased from 26 basis points to 35 basis points.
- ✓ The CEP portfolio size is approximately 1.64% of the CalSTRS investment portfolio.
- ✓ Program credit quality is A+/Aa3, based on weighted, rating analysis.
- ✓ Based on the program underwriting and the strength of CalSTRS, the CEP has been able to maintain an AAA/Aaa/AAA rating by Standard and Poor's, Moody's Investors Service, and Fitch Ratings, respectively.

Date	CEP	# of CEP	CEP Annualized	CalSTRS	CEP % of
	Portfolio	Transactions	Fee Income	Portfolio	CalSTRS
January 1999	\$512 million	70	\$1.4 million	\$93 billion	.55%
January 2000	\$783 million	88	\$2.1 million	\$111 billion	.71%
January 2001	\$1,051 million	104	\$2.6 million	\$104 billion	.98%
January 2002	\$1,250 million	110	\$3.0 million	\$102 billion	1.23%
November 2002	\$1,507 million	117	\$5.0 million	\$92 billion	1.64%

(The November 2002 CEP portfolio total includes credit enhancement to the Department of Water Resources Power Bond issues.)

Risk Mitigation The CEP mitigates the program risks by using various risk management techniques:

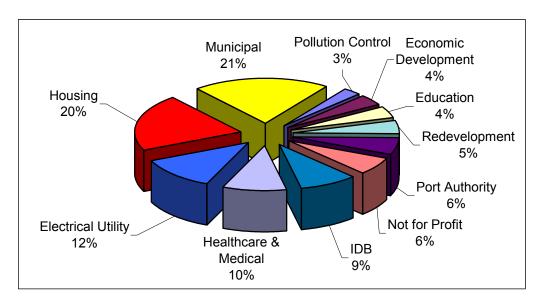
- ✓ Portfolio structure
- ✓ Sector diversification
- ✓ Credit quality

<u>Portfolio Structure</u> CalSTRS is in a 2^{nd} loss position in 69% of the portfolio and in a 1^{st} loss position in 31% of the portfolio. In a 1^{st} loss position, there are normally revenue streams that support the credit or a lien on property.

Structure	Commitment	%
Indirect Risk (2 nd loss position)	\$1,038,849,744	69%
Direct Risk (1 st loss position)	\$468,574,696	31%
Portfolio Total	\$1,507,424,440	100%

Figures as of October 31, 2002

<u>Sector Diversification</u> The CEP is well diversified by sector as the following chart indicates.



Figures as of October 31, 2002

<u>Credit Quality</u> In order to maintain a high quality portfolio, staff analyzes the portfolio using a "risk management" grading system based on rating agency standards. As of October 31, 2002, the credit quality of the CEP portfolio was A+/Aa3.

The CEP study conducted by KPMG in March 2002, found the program to have a very low-risk portfolio when compared to AAA rated bond insurance firms. KPMG concluded the CEP was $2\frac{1}{2}$ to 5 times more conservative than the bond insurers.

DISCUSSION

In reviewing the objectives and performance of the program, the following accomplishments are noted:

- Generate fee income fee income increased to \$5 million in year 2002
- > Strive for zero losses by maintaining a low risk, high quality portfolio the CEP has never experienced any losses and the quality of the portfolio remains high at A+/Aa3
- ➤ Diversification the program is well diversified by structure and sector

Staff intends to maintain the current objectives of the program. Increasing the limit of the program to 3% will allow the program to grow. The expansion of the portfolio size will not have a negative effect on the current ratings of the program, according to Standard and Poor's, Moody's Investors Service and Fitch Ratings.

Investment Committee – Item 4 December 4, 2002 Page 2

RECOMMENDATION

Staff and PCA recommend that the Investment Committee approve the updated Credit Enhancement Program Policy Manual and the attached Board Resolution (Attachment 3).

Date prepared	
By:	
Jean Kushida Uda Investment Officer	
Richard Rose Principal Investment Officer	
Réal Desrochers Director of Alternative Investments	
	Review and Concur:
	Christopher J. Ailman Chief Investment Officer

Attachment 1 Investments Committee – Item 4 December 4, 2002

Calstrs california state teachers' retirement system

CREDIT ENHANCEMENT PROGRAM POLICY MANUAL

INVESTMENT BRANCH April 1999

INTRODUCTION

In accordance with the decision by the California State Teachers' Retirement System (CalSTRS) to pursue the development of a Credit Enhancement Program, CalSTRS has established an ongoing program that emphasizes earning fee income through the enhancement of bond transactions.

Credit Enhancement is an off-balance sheet activity that does not affect the CalSTRS asset allocation. The primary objective of the program is to earn fee income. The bond transactions are either governmental or private activity, which have a public purpose (e.g. multi-family housing, industrial development, pollution control). The credit enhancement opportunity set is considered lower risk.

Internal professionals, who operate under the direction of the Chief Investment Officer, or designee, perform the management of the credit enhancement activities.

This manual will establish the policies involved in the management of the Credit Enhancement Program. The policies are designed to set boundaries for expected performance, diversification, and investment structure. The procedures are designed to provide guidelines for the implementation of the approved policies. A flow chart is provided to establish context for the policies presented.

WHAT IS CREDIT ENHANCEMENT?

Credit enhancement is an agreement by CalSTRS to provide for the payment of principal and interest in the event that the primary obligor does not meet the terms and conditions of the bond indenture. This substitution (for a fee) allows the public or private entity borrowing access to the capital markets and permits them to pay a lower interest rate to investors. The most utilized form of credit enhancement is a letter-of-credit. Another form of credit enhancement used by the CalSTRS Credit Enhancement Program is called a liquidity enhancement. Liquidity enhancement is used for short term or variable rate securities to give investors confidence in the amount of liquidity associated with a specific security. Most liquidity enhancements contain a lesser degree of credit exposure than letters-of-credit.

The Credit Enhancement Program is an off-balance sheet program since it is a commitment to pay investors in circumstances that are expected to be highly infrequent. The strategic asset allocation plan is not affected.

FORMS OF CREDIT ENHANCEMENT

- Liquidity Support
- Credit Support
- Combination of Liquidity and Credit Support

CREDIT ENHANCEMENT INSTRUMENTS

Credit enhancement transactions normally utilize financial instruments known as letters-of-credit (LOC). A LOC is an unconditional promise to make payments up to a stated amount for a specified period upon receipt of a proper notice. The commitment is irrevocable. The following are the type of LOCs that CalSTRS utilizes:

Direct Pay Letter-of-Credit

For this letter-of-credit, the investor (through the trustee) looks to the Direct Pay LOC Bank (could be CalSTRS) for all interest and principal payments to investors. The obligor (company or municipality seeking credit) then reimburses the Direct Pay Bank. If the obligor fails to reimburse for the LOC drawing, the fronting bank, with the first loss position in the obligor's creditworthiness, reimburses CalSTRS.

Confirming Letter-of-Credit

For this LOC, the investor (through the trustee) looks to the bank supporting the obligor to make the interest and principal payments to investors. If the bank fails to make these payments, the trustee calls upon CalSTRS to make the payment. CalSTRS would then demand reimbursement from the bank.

Liquidity Facility

This form of LOC is an availability to purchase securities under specific situations. The bonds or commercial paper that this facility supports may be remarketed on a daily, weekly, or monthly basis. There is a need to have their marketability guaranteed. If there is a failed remarketing, CalSTRS may be required to "purchase" these bonds and receive pre-agreed interest payments. In the case of commercial paper, this commitment may be revocable under certain circumstances.

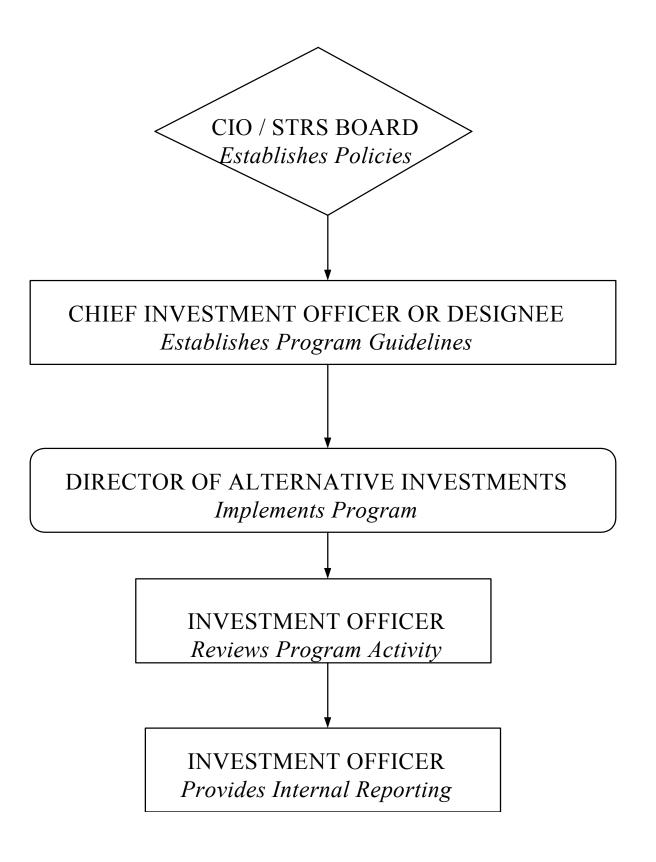
Trustee

A financial institution with fiduciary responsibilities to bondholders (investors) to make principal and interest payments as well as administer all other aspects of the bond indenture.

Bond Indenture

An agreement between an issuer of bonds and the bondholder setting forth the terms and conditions of the bonds. The bond indenture also provides for the appointment of a trustee to act on behalf of bondholders

CREDIT ENHANCEMENT PROCESS



CREDIT ENHANCEMENT PROGRAM POLICIES

A credit enhancement is the substitution of a public or private entity's credit standing with that of a financial institution that has a higher credit rating. It is an agreement by a third party to pay the investor any scheduled interest and/or principal payments in the event the primary obligor does not pay. This substitution (for a fee) allows the public or private entity access to the capital markets and permits them to pay a lower interest rate to investors. The most utilized form of credit enhancement is a letter-of-credit. Another form of credit enhancement used in the CalSTRS Credit Enhancement Program is called a liquidity enhancement. Liquidity enhancement is used for short term or variable interest rate securities to give investors confidence in the amount of liquidity associated with a specific security. Most liquidity enhancements contain a lesser degree of credit exposure than letters-of-credit.

The conservative level of credit risk and the potential for substantial fee income combine to make CalSTRS' Credit Enhancement Program a significant contributor to the investment returns.

The following represent the approved policies to be utilized in the management of the Credit Enhancement Program. The policies are designed to set boundaries for the expected performance and structure. Policies approved by the CalSTRS Board cannot be altered without explicit direction from the CalSTRS Board.

- 1. The Credit Enhancement Program of the California State Teachers' Retirement System is invested in a prudent manner for the sole benefit of CalSTRS' participants and beneficiaries in accordance with California State Law.
- 2. The primary objective of the Credit Enhancement program is to provide fee income through the enhancement of low risk bond transactions for either governmental entities or private activities that serve a public interest (e.g. multifamily housing, industrial development, pollution control).
- 3. The structure of the transaction is a primary form of risk management. However, diversification by municipal finance sectors is important to control risk. These transactions are considered low risk and frequently have structural protections that are the primary form of risk control.
- 4. Credit enhancement is considered a selective investment activity. The maximum amount of outstanding commitments enhanced under the Credit Enhancement Program is limited to two three percent (2-3%) of the market value of the CalSTRS investment portfolio.
- 5. No investment vehicle or activity prohibited by the Investment Resolution adopted by the Board in 1984, as amended from time to time, will be authorized for the Credit Enhancement Program.

- 6. Authorization letters, which indicate who may sign on behalf of CalSTRS shall be included at the time of the closing of a transaction.
- 7. Prior to being processed by the Operations Area, all wire transfers and bond purchases shall be signed by two Investment Officers.
- 8. Graduated limitations of daily authority to wire transfer funds or purchase bonds under specific situations are as follows:

Associate Investment Officer	\$ 5 Million
Investment Officer I	\$ 10 Million
Investment Officer II	\$ 25 Million
Investment Officer III	\$ 75 Million
Principal Investment Officer	\$200 Million
Director of Alternative Investments	\$300 Million
Chief Investment Officer	\$500 Million

- 9. The Credit Enhancement Program will be managed according to an annual business plan whose main business components will encompass an assessment of the credit enhancement market, a review of the portfolio, a review of the strategy, a review of targets, and a resource allocation budget.
- 10. The Credit Enhancement Program will report on a monthly basis: a) new transactions, b) summary of existing transactions broken down by structure, and c) financial institution risk.
- 11. The rejection decision for a credit enhancement transaction is delegated to staff with the stipulation that all investment opportunities receive equal opportunity and subject to the appropriate amount of due diligence as defined in the credit enhancement procedures.
- 12. The approval decision for up to \$400 million, per transaction, is delegated to staff as it relates to the Credit Enhancement Program. Each transaction shall have a written positive recommendation by the CalSTRS staff and Chief Investment Officer.
- 13. The approval decision for the Credit Enhancement Program is delegated to staff considering the following stipulations:
 - A. All credit enhancement and liquidity enhancement transactions must be for projects that are located in California and the contiguous states including Oregon, Nevada and Arizona. This reduces the time required to complete the due diligence process and increases the probability that potential issues can be identified and resolved at the earliest opportunity.
 - B. All credit enhancement and liquidity enhancement transactions must be completed in conjunction with a third party external to CalSTRS. This "partnership" with another

financial institution is designed to help ensure that the private market discipline is present at all transactions.

- C. The amount of risk associated with each transaction will be limited to the amount of the total credit risk as defined below subject to limitations in 13C-4:
 - 1. 50% of the pro-rata direct risk transaction which is shared with a partner financial institution, or
 - 2. 100% of a credit enhanced transaction in the form a letter-of-credit supporting a project that has another financial institution taking the direct credit risk, or
 - 3. 100% of the liquidity risk in a transaction that is enhanced by a bond insurer.
 - 4. 25% of transactions involving employing agencies such as the California public schools, public colleges and universities, or California Agencies and Departments.
- D. All financial partners, as identified in policy 13C, must have an investment grade credit rating by a recognized credit rating agency (such as Moody's, S&P, Fitch or Thomson BankWatch) or equivalent credit rating documented by the CalSTRS staff.
- E. To the extent possible, all fees charged, credit terms, legal conditions and project structures for credit and liquidity transactions should reflect current market conditions at the time of transaction.
- F. Diversification by geographic, industry sector and transaction type is desired. The following types of transactions may be financed under the program (the list is not exhaustive):
 - 1. Private activity bonds such as industrial development bonds, pollution control bonds, and multi-family housing,
 - 2. Public and private non-profit entities providing a public good or service,
 - 3. Tax and revenue anticipation notes and commercial paper,
 - 4. City, special district and other governmental financing.

Calstrs california state teachers' retirement system

CREDIT ENHANCEMENT PROGRAM POLICY MANUAL

INVESTMENT BRANCH April 1999

INTRODUCTION

In accordance with the decision by the California State Teachers' Retirement System (CalSTRS) to pursue the development of a Credit Enhancement Program, CalSTRS has established an ongoing program that emphasizes earning fee income through the enhancement of bond transactions.

Credit Enhancement is an off-balance sheet activity that does not affect the CalSTRS asset allocation. The primary objective of the program is to earn fee income. The bond transactions are either governmental or private activity, which have a public purpose (e.g. multi-family housing, industrial development, pollution control). The credit enhancement opportunity set is considered lower risk.

Internal professionals, who operate under the direction of the Chief Investment Officer, or designee, perform the management of the credit enhancement activities.

This manual will establish the policies involved in the management of the Credit Enhancement Program. The policies are designed to set boundaries for expected performance, diversification, and investment structure. The procedures are designed to provide guidelines for the implementation of the approved policies. A flow chart is provided to establish context for the policies presented.

WHAT IS CREDIT ENHANCEMENT?

Credit enhancement is an agreement by CalSTRS to provide for the payment of principal and interest in the event that the primary obligor does not meet the terms and conditions of the bond indenture. This substitution (for a fee) allows the public or private entity borrowing access to the capital markets and permits them to pay a lower interest rate to investors. The most utilized form of credit enhancement is a letter-of-credit. Another form of credit enhancement used by the CalSTRS Credit Enhancement Program is called a liquidity enhancement. Liquidity enhancement is used for short term or variable rate securities to give investors confidence in the amount of liquidity associated with a specific security. Most liquidity enhancements contain a lesser degree of credit exposure than letters-of-credit.

The Credit Enhancement Program is an off-balance sheet program since it is a commitment to pay investors in circumstances that are expected to be highly infrequent. The strategic asset allocation plan is not affected.

FORMS OF CREDIT ENHANCEMENT

- Liquidity Support
- Credit Support
- Combination of Liquidity and Credit Support

CREDIT ENHANCEMENT INSTRUMENTS

Credit enhancement transactions normally utilize financial instruments known as letters-of-credit (LOC). A LOC is an unconditional promise to make payments up to a stated amount for a specified period upon receipt of a proper notice. The commitment is irrevocable. The following are the type of LOCs that CalSTRS utilizes:

Direct Pay Letter-of-Credit

For this letter-of-credit, the investor (through the trustee) looks to the Direct Pay LOC Bank (could be CalSTRS) for all interest and principal payments to investors. The obligor (company or municipality seeking credit) then reimburses the Direct Pay Bank. If the obligor fails to reimburse for the LOC drawing, the fronting bank, with the first loss position in the obligor's creditworthiness, reimburses CalSTRS.

Confirming Letter-of-Credit

For this LOC, the investor (through the trustee) looks to the bank supporting the obligor to make the interest and principal payments to investors. If the bank fails to make these payments, the trustee calls upon CalSTRS to make the payment. CalSTRS would then demand reimbursement from the bank.

Liquidity Facility

This form of LOC is an availability to purchase securities under specific situations. The bonds or commercial paper that this facility supports may be remarketed on a daily, weekly, or monthly basis. There is a need to have their marketability guaranteed. If there is a failed remarketing, CalSTRS may be required to "purchase" these bonds and receive pre-agreed interest payments. In the case of commercial paper, this commitment may be revocable under certain circumstances.

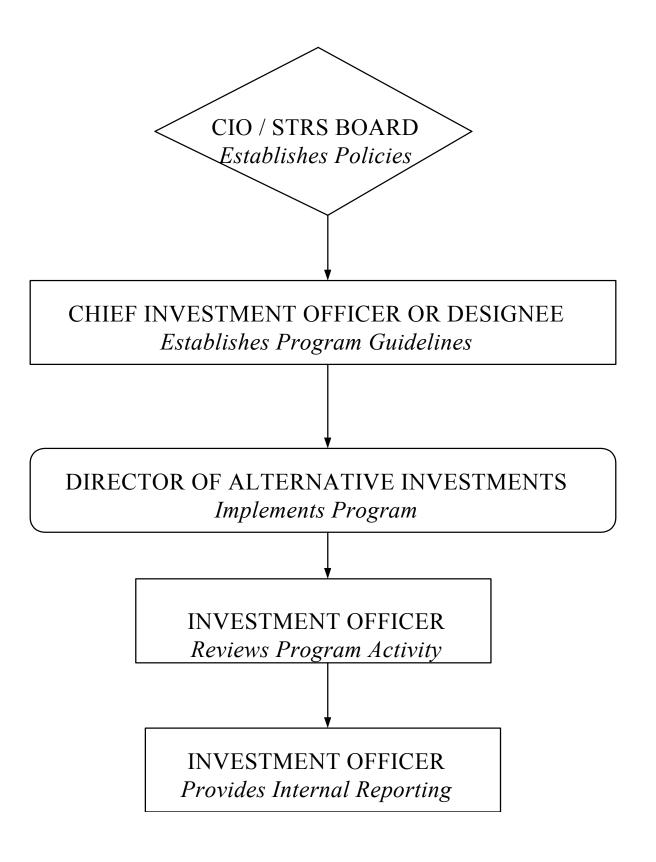
Trustee

A financial institution with fiduciary responsibilities to bondholders (investors) to make principal and interest payments as well as administer all other aspects of the bond indenture.

Bond Indenture

An agreement between an issuer of bonds and the bondholder setting forth the terms and conditions of the bonds. The bond indenture also provides for the appointment of a trustee to act on behalf of bondholders

CREDIT ENHANCEMENT PROCESS



CREDIT ENHANCEMENT PROGRAM POLICIES

A credit enhancement is the substitution of a public or private entity's credit standing with that of a financial institution that has a higher credit rating. It is an agreement by a third party to pay the investor any scheduled interest and/or principal payments in the event the primary obligor does not pay. This substitution (for a fee) allows the public or private entity access to the capital markets and permits them to pay a lower interest rate to investors. The most utilized form of credit enhancement is a letter-of-credit. Another form of credit enhancement used in the CalSTRS Credit Enhancement Program is called a liquidity enhancement. Liquidity enhancement is used for short term or variable interest rate securities to give investors confidence in the amount of liquidity associated with a specific security. Most liquidity enhancements contain a lesser degree of credit exposure than letters-of-credit.

The conservative level of credit risk and the potential for substantial fee income combine to make CalSTRS' Credit Enhancement Program a significant contributor to the investment returns.

The following represent the approved policies to be utilized in the management of the Credit Enhancement Program. The policies are designed to set boundaries for the expected performance and structure. Policies approved by the CalSTRS Board cannot be altered without explicit direction from the CalSTRS Board.

- 2. The Credit Enhancement Program of the California State Teachers' Retirement System is invested in a prudent manner for the sole benefit of CalSTRS' participants and beneficiaries in accordance with California State Law.
- 9. The primary objective of the Credit Enhancement program is to provide fee income through the enhancement of low risk bond transactions for either governmental entities or private activities that serve a public interest (e.g. multifamily housing, industrial development, pollution control).
- 10. The structure of the transaction is a primary form of risk management. However, diversification by municipal finance sectors is important to control risk. These transactions are considered low risk and frequently have structural protections that are the primary form of risk control.
- 11. Credit enhancement is considered a selective investment activity. The maximum amount of outstanding commitments enhanced under the Credit Enhancement Program is limited to three percent (3%) of the market value of the CalSTRS investment portfolio.
- 12. No investment vehicle or activity prohibited by the Investment Resolution adopted by the Board in 1984, as amended from time to time, will be authorized for the Credit Enhancement Program.

- 13. Authorization letters, which indicate who may sign on behalf of CalSTRS shall be included at the time of the closing of a transaction.
- 14. Prior to being processed by the Operations Area, all wire transfers and bond purchases shall be signed by two Investment Officers.
- 15. Graduated limitations of daily authority to wire transfer funds or purchase bonds under specific situations are as follows:

Associate Investment Officer	\$ 5 Million
Investment Officer I	\$ 10 Million
Investment Officer II	\$ 25 Million
Investment Officer III	\$ 75 Million
Principal Investment Officer	\$200 Million
Director of Alternative Investments	\$300 Million
Chief Investment Officer	\$500 Million

- 14. The Credit Enhancement Program will be managed according to an annual business plan whose main business components will encompass an assessment of the credit enhancement market, a review of the portfolio, a review of the strategy, a review of targets, and a resource allocation budget.
- 15. The Credit Enhancement Program will report on a monthly basis: a) new transactions, b) summary of existing transactions broken down by structure, and c) financial institution risk.
- 16. The rejection decision for a credit enhancement transaction is delegated to staff with the stipulation that all investment opportunities receive equal opportunity and subject to the appropriate amount of due diligence as defined in the credit enhancement procedures.
- 17. The approval decision for up to \$400 million, per transaction, is delegated to staff as it relates to the Credit Enhancement Program. Each transaction shall have a written positive recommendation by the CalSTRS staff and Chief Investment Officer.
- 18. The approval decision for the Credit Enhancement Program is delegated to staff considering the following stipulations:
 - D. All credit enhancement and liquidity enhancement transactions must be for projects that are located in California and the contiguous states including Oregon, Nevada and Arizona. This reduces the time required to complete the due diligence process and increases the probability that potential issues can be identified and resolved at the earliest opportunity.
 - E. All credit enhancement and liquidity enhancement transactions must be completed in conjunction with a third party external to CalSTRS. This "partnership" with another

financial institution is designed to help ensure that the private market discipline is present at all transactions

- F. The amount of risk associated with each transaction will be limited to the amount of the total credit risk as defined below subject to limitations in 13C-4:
 - 5. 50% of the pro-rata direct risk transaction which is shared with a partner financial institution, or
 - 6. 100% of a credit enhanced transaction in the form a letter-of-credit supporting a project that has another financial institution taking the direct credit risk, or
 - 7. 100% of the liquidity risk in a transaction that is enhanced by a bond insurer.
 - 8. 25% of transactions involving employing agencies such as the California public schools, public colleges and universities, or California Agencies and Departments.
- G. All financial partners, as identified in policy 13C, must have an investment grade credit rating by a recognized credit rating agency (such as Moody's, S&P, Fitch or Thomson BankWatch) or equivalent credit rating documented by the CalSTRS staff.
- H. To the extent possible, all fees charged, credit terms, legal conditions and project structures for credit and liquidity transactions should reflect current market conditions at the time of transaction.
- I. Diversification by geographic, industry sector and transaction type is desired. The following types of transactions may be financed under the program (the list is not exhaustive):
 - 5. Private activity bonds such as industrial development bonds, pollution control bonds, and multi-family housing,
 - 6. Public and private non-profit entities providing a public good or service,
 - 7. Tax and revenue anticipation notes and commercial paper,
 - 8. City, special district and other governmental financing.

Attachment 3 Investment Committee – Item 4 December 4, 2002

PROPOSED RESOLUTION OF THE CALIFORNIA STATE TEACHERS' RETIREMENT BOARD

Subject: Credit Enhancement Policy
Resolution No
WHEREAS, the Investment Committee of the California State Teachers' Retirement Board is responsible for recommending to the Board, investment policy and overall investment strategy; and
WHEREAS, the Investment Committee has received and reviewed the Credit Enhancement Policies and has heard oral presentations from Staff; and
WHEREAS, The Staff and PCA have recommended the adoption of the Credit Enhancement Policies; therefore be it
Resolved, that the Investment Committee of the California State Teachers' Retirement Board adopts the Credit Enhancement Program Policies.
Adopted by: Investment Committee On December 4, 2002
Jack Ehnes Chief Executive Officer